Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

STANDARD TIME.

BY PROF. H. S. S. SMITH, UNIVERSITY OF KANSAS.

In bringing this subject before the Academy, it is not my intention to discuss it generally, but to note briefly what has already been done in this country toward the introduction of uniform standards, and to consider some points connected with its introduction into our own State. With the simple mention of the fact that in England and Scotland every one uses Greenwich time, let us see what has been done in this country. We have no system of standard time. The fact is, that there are more than seventy-five different standards in use by the different railroads; and besides these, there are the innumerable local times in use by the various towns and cities. Those standards that are in use over extended districts must, of course, be kept accurately, and where this has been done satisfactorily, the use of the standard has gradually spread.

There are now ten observatories that send out time-signals regularly for railroad or for general use. They are—

1. Harvard College observatory, Cambridge, Mass.
2. Yale College observatory, New Haven, Conn.
3. Dudley observatory, Albany, N. Y.
4. National observatory, Washington, D. C.
5. Allegheny observatory, Allegheny, Pa.
6. Cincinnati observatory, Mt. Lookout, Ohio.
7. Dearborn observatory, Chicago, Ill.
8. Washington University observatory, St. Louis, Mo.
9. Morrison observatory, Glasgow, Mo.
10. Carleton College observatory, Northfield, Minn.

The principal times employed are these:

1. Boston time, on the railroads of New England.
2. New York time, in Connecticut by law, and on most of the railroads that run to New York.
3. Philadelphia time, over the Pennsylvania Railroad and its branches.
4. Washington time.
5. Chicago time, on most of the railroads that center there.
6. Jefferson City time, over most of the railroads in Kansas and Missouri.
7. Northfield time, over more than 5,500 miles of railroad in the Northwest.

The only advantage that can arise from this multiplicity of standards is the nominal satisfaction of having the sun cross the meridian when the clock strikes twelve. That this satisfaction is merely nominal, can be proved from the condition of affairs in this very city (Topeka). Local time is here about sixteen minutes slower than the railroad time that is used. When the real sun is slow and behind the average sun, the difference between apparent sun time and railroad time is more than half an hour, and yet no one notices the difference. The only advantage gained by a multiplicity of standards, and we have seen that it is purely nominal, is the only disadvantage of a standard common to a wide area.

The advantages that would accrue to navigation, railroad interests, newspaper dispatching, telegraphic communications of all kinds, scientific observations, and other similar but more general interests, can be fully realized only from a wide extension of a common system. In a State the advantages are more personal. Sixty minutes make an hour. Five minutes here and ten there, wasted because two railroads differ in their standards, will soon amount to considerable lost time. If the local time is slower than the railroad time, the forgetting this fact may involve a full day's delay. Persons coming from Lawrence to Topeka find that their watches are a quarter of an hour slow. The journey from Topeka to Wyandotte involves a change of twelve minutes in the other direction. While these may seem trivial concerns, they have, in reality, a decided influence on the convenience of most people.

Should a system of common time be established in this State, as has been done in Connecticut, the selection of the proper meridian would be one of the first questions to be settled. In doing this, regard must be had, not alone to the convenience of the majority and to State feeling, but also to the fact that it is quite probable that within a few years there will be established a system extending over the whole country. The outline of the plan is that there shall be four "times," differing by even hours, and in use respectively in the Atlantic States, the Mississippi valley, the Rocky Mountain region, and the Pacific States. The leaders in the movement have not yet determined which of the two principal meridians (Greenwich or Washington) shall be chosen as the base. It would seem that the meridian of Greenwich would be the better.

The six meridians that are available for use in this State are these:

1. The meridian of the observatory of the State University, at Lawrence, where the time would be determined and sent over the State.
2. The meridian of the State Capitol building, at Topeka.
3. The meridian of Kansas City—the practical commercial focus of the State.
4. The meridian that is one hour west of Washington.
5. The meridian that is six hours west of Greenwich.
6. The meridian that is seven hours west of Greenwich.

These times will be in error, as compared with true local times at the eastern and western boundaries of the State, as follows:

	East.	*West.*
1. Lawrence meridian	2 m. slow.	28 m. fast.
2. Topeka meridian	4 m. slow.	26 m. fast.
3. Kansas City meridian	0 m.	30 m. fast.
4. Washington (one hour) meridian	11 m. fast.	41 m. fast.
5. Greenwich (six hours) meridian	19 m. fast.	49 m. fast.
6. Greenwich (seven hours) meridian	41 m. slow.	11 m. slow.

After weighing the matter carefully, I should say that the meridian that is six hours west from Greenwich will be most likely to be convenient for general use in Kansas. While the differences between this and true local times are larger than for any other meridian, the fact that its use would connect us with the whole Mississippi valley, bears strongly in its favor.

BOTANICAL ADDENDA FOR 1881 AND 1882.

BY PROF. J. H. CARRUTH, LAWRENCE.

Since my last report, two of my botanical correspondents, for whom I had a high regard, have been called away: Mrs. E. C. Jewell, of Irving, Kas., and Mr. Elihu Hall, of Illinois.

In my last report, I inadvertently put *Conioselinum* for *Conoclinium*. I have learned that *Gaura mollis* and *Gaura parviflora* are the same. *Trillium erectum*, in my last report, proves to be *T. sessile* L.

At the meeting of the State Horticultural Society in 1879, the delegates from twenty-one counties reported white ash, *Fraxinus Americana.* At the meeting the next year, some members maintained that the green ash had been mistaken for white ash, and that we had no white ash. A careful and extensive examination the season past has satisfied me that we have white ash.

The additions now made are but few. The field has been reaped, and henceforth I can only give the gleanings. Of one package sent away last spring for examination, I have no returns. In August last I visited Lyon, Morris, Greenwood, Sumner, Rice, Stafford and Barton counties, and though I became better acquainted with many plants, I found but few new ones. Mr. Plank, of Independence, has made a thorough survey of Montgomery county, but his collection has not been thoroughly examined. Mr. E. Bartholomew, of Rockport, Rooks county, has explored that county the past season, and sent me his doubtful specimens. The few that I cannot determine, I cannot send away and get returns from for this report. Dr. J. H. Oyster, of Paola, has also sent a few.

1438 Cardamine hirsuta L. Lawrence; found by students.
1439. Solea concolor Ging. Reported from La Cygne.
1440. Æsculus parviflora Walt. Independence.
1441. Lathyrus pusillus Ell. Ind.
1442. Lespedeza procumbens Mx. Not before distinguished from L. repens.
1443. Psoralea lanceolata Ph. Rooks county.
1444. Crotallaria ovalis Ph. Ind.
1445. Melilotus officinalis Willd. Emporia and Topeka.
1446. Ludwigia arcuata Walt. Ind.
1447. Œnothera rhombipetala Nutt. Rooks county.
1448. Passiflora incarnata L. Ind.